



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,505	11/26/2003	Dale G. Swan	SRM0006/US	8953

7590 11/08/2006

Paul L. Weaver
Kagan Binder, PLLC
Maple Island Building, Suite 200
221 Main Street North
Stillwater, MN 55082

EXAMINER

NAFF, DAVID M

ART UNIT	PAPER NUMBER
----------	--------------

1657

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,505

Applicant(s)

SWAN ET AL.

Examiner

David M. Naff

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 22-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/04, 7/7/05</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1657

DETAILED ACTION

A response of 8/4/06 to a restriction requirement of 6/23/06 elected Group I claims 1-21 with traverse.

The traverse urges that Groups I-IV all require a polymerization accelerator as a key feature. However, this does not preclude the inventions from being distinct for reasons set forth in the restriction requirement. Even though inventions I-IV require the accelerator, the inventions require other features in addition to the accelerator that result in each invention being different such that each invention is distinct and restrictable as stated in the restriction requirement. The restriction requirement is still considered proper, and is adhered to and made final.

Claims 22-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8/4/06.

Claims examined on the merits are 1-21.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and

Art Unit: 1657

distinctly claim the subject matter which applicant regards as the invention.

In claim 1 and where recited in other claims "polymerization accelerator" is uncertain as to meaning and scope. Without any limits
5 how the accelerator functions, being an accelerator is relative and subjective.

In claim 9, it would uncertain as to materials that function as an acceptor or reductant since no conditions of how the acceptor or reductant functions have been specified.

10 In claim 10, "albumin binding moieties" and "phospholipids moieties" are uncertain as to functional groups encompassed by the terms. Whether the group binds albumin will depend on conditions used in addition to the type of group present. Certain conditions may result in binding albumin, whereas other conditions do not. It is
15 uncertain how the accelerator can contain a phospholipid as a functional group.

In claims 17 and 18, there is not clear antecedent basis for "the polymeric matrix". Claim 1 does not require a polymeric matrix.

In claim 21, there is not antecedent basis for "the polymerizable
20 material" (bridging the last two lines).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

25 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

Art Unit: 1657

subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 and 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbell et al (5,529,914) or Hubbell et al (6,258,870 B1).

Hubbell et al ('914) and ('870) disclose a method involving combining a macromer with a photoinitiator and a polymerization accelerator, and polymerizing the macromer. For example, see claims 1, 67 and 68 of Hubbell et al ('914) and claims 1, 30 and 31 of Hubbell et al ('870). A composition as presently claimed would have been obvious from the method of Hubbell et al ('914) or ('870) since carrying out the method requires combining the macromer, photoinitiator and accelerator prior to polymerizing. Accelerators disclosed by Hubbell et al ('914) and ('870) inherently contain a

Art Unit: 1657

biocompatible functional group as required by the claims. The conditions of dependent claims are inherent in conditions used by Hubbell et al, or are sufficiently similar to conditions used by Hubbell et al to be obvious from conditions disclosed by Hubbell et al. For example, acrylic acid contains a carboxylate as in claim 10, and accelerators disclosed Hubbell et al are inherently capable of binding albumin as in claim 10. Accelerators are disclosed Hubbell et al that contain N-vinyl as in claim 12, and N-vinyl-pyrrolidinone disclosed by Hubbell et al contains a carbonyl as in claim 13, an N-vinyl amide as in claim 14, and a heterocyclic ring as in claim 15.

Claim Rejections - 35 USC § 103

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbell et al ('914) or ('870) in view of Corley et al 5,746,935) or Corley et al (5,442,035).

15 The claim requires the functional group to be a sulfonate group.

Corley et al ('935) and ('035) disclose an accelerator containing a sulfonate for curing an epoxy resin-polyamine or -aliphatic amine curing agent. For example, see col 3, line 44 of Corley et al ('935) and col 2, line 13 of Corley et al ('035). The accelerators are amine
20 compatible.

It would have been obvious to use in Hubbell et al ('914) or ('870) an accelerator that contains a sulfonate when desiring a accelerator that is amine compatible as suggested by Corley et al ('935) and ('035).

Art Unit: 1657

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be
5 reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For
15 more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff
Primary Examiner
Art Unit 1651

20

DMN
11/4/06